

seen in New England. Judge Churchill signalized his extra day's botanizing by the discovery of another grass not previously known from Connecticut, *Trisetum subspicatum*, Beauv., var. *molle*, Gray. In spite of the failure to rediscover Trollius the trip was voted a great success by all members of the party and the collections made have added many rare and northern species to the flora of Connecticut.

SOUTHINGTON, CONNECTICUT.

## FLORA OF MT. SADDLEBACK, FRANKLIN COUNTY, MAINE.

C. H. KNOWLTON.

SADDLEBACK is situated in Madrid and Sandy River Plantation. The horn and the saddle lie wholly in Madrid, while the main ridge, with three "nubbles" reaches into the next township. The highest elevation, 4450 feet, is reached at the "pinnacle," the nubble nearest the saddle. Between the second and third nubbles is a small pond of rain water.

The ridge is composed of coarse granite, evidently intruded as a core beneath overlying strata. A considerable area of this overlying rock, strongly metamorphosed and contorted, still remains at one place near the horn of the saddle; not, however, at its highest part. The granite is faulted in several places, noticeably in the saddle.

My first visit to the mountain was in company with Mr. M. L. Fernald, August 16-17, 1894, and my second the past summer, August 20-21, 1902. Mr. H. E. Dunham, now of Amesbury, Massachusetts, was a member of the party both times.

The less noteworthy, but yet typical plants of the mountain woods and bare slopes are as follows:

*Oxalis Acetosella*, L.

*Nemophanthus fascicularis*, DC.

*Acer Pennsylvanicum*, L.

*Acer spicatum*, Lam.

*Pyrus Americana*, DC.

*Amelanchier oligocarpa*, Roem.

*Conioselinum Canadense*, T. & G.

*Kalmia glauca*, Ait.

*Rhododendron Rhodora*, Don.

*Ledum Groenlandicum*, Oeder.

*Alnus viridis*, DC.

*Empetrum nigrum*, L.

<sup>1</sup> *Empetrum nigrum*, L., var. *Andinum*,  
DC.

<sup>1</sup> RHODORA, iv. 147, 1906.

<i>Viburnum cassinoides</i> , L.	<i>Picea nigra</i> , Link.
<i>Lonicera ciliata</i> , Muhl.	<i>Picea rubra</i> , Link.
<i>Diervilla trifida</i> , Moench.	<i>Abies balsamea</i> , Miller.
<i>Aster acuminatus</i> , Mx.	<i>Streptopus amplexifolius</i> , DC.
<i>Aster acuminatus</i> , form with flowers converted to chaff.	<i>Clintonia borealis</i> , Raf.
<i>Aster macrophyllus</i> , L.	<i>Eriophorum vaginatum</i> , L.
<i>Cnicus muticus</i> , Pursh.	<i>Carex crinita</i> , Lam.
<i>Vaccinium Oxycoccus</i> L.	<i>Agropyron caninum</i> , R. & S.
<i>Chiogenes serpyllifolia</i> , Salisb.	<i>Cinna pendula</i> , Trin.

Other plants, whose occurrence and distribution deserve more than passing notice, are as follows :

*Arenaria Groenlandica*, Spreng. Acres and acres of the upper slopes of the mountain are covered with this delicate plant. It grows also on Mt. Bigelow, in far less profusion.

*Trifolium hybridum*, L., grows above timber-line with *Phleum pratense*, L. It is rather remarkable that they should have been introduced at such an elevation, higher than any horse could climb.

*Rubus Chamaemorus*, L., grows in the sphagnum on the higher part of the saddle toward the horn. This has been reported from the higher White Mountains, from Baldpate Mountain, Grafton, Maine, and it reappears as an arctic coast plant in eastern Maine. It has not been found on Katahdin.

*Potentilla tridentata*, Ait., hardly deserves mention as a mountain plant, for it is frequent on rocky slopes and dry sand-plains at all altitudes throughout the region, down as low as 350 feet in Jay, the southern town of the county, and throughout the Androscoggin valley to the coast.

*Solidago macrophylla*, Pursh, is abundant in the wooded parts of the mountain, and is frequent in mountain woods above 1800 feet throughout the county.

*Vaccinium Pennsylvanicum*, Lam., var. *angustifolium*, Gray. This grows abundantly on exposed slopes, often with the type. I have also collected it on the Abraham range, about ten miles away (RHODORA, i. 191).

*Vaccinium uliginosum*, L., is abundant above timber-line here and throughout the region. It also occurs along the Carrabassett in Jerusalem, and as low as 700 feet at Farmington (RHODORA i. 162).

*Vaccinium caespitosum*, Michx., was collected by M. L. Fernald and the author in 1894, growing in moss near the pinnacle. This I did not

detect the past season, as no fruit formed. It has been collected at Phillips by Mr. Fernald, and it should be found at other stations in the county.

*Vaccinium Vitis-Idaea*, L., is common above timber-line on all the mountains of the region. I have found it on a wind-swept ridge at Farmington not higher than 800 feet.

*Kalmia augustifolia*, L. This common species was blossoming freely at the time of my second visit, apparently a second crop of flowers.

*Diapensia Lapponica*, L. Abundant on the wind-swept portions, especially on the saddle. There is a small area of it on Bald Mountain in Mt. Abraham township.

*Comandra livida*, Richardson. Frequent in moss on the higher parts of the main ridge. This station, Bald Mountain, Katahdin, Mt. Washington, and Mt. Mansfield, Vermont, are the only stations in New England for this interesting plant.

*Betula alba*, L., var. *cordifolia*, Fernald, is abundant in the upper ravines, with stunted forms on the wind-swept heights.

*Salix balsamifera*, Barratt. I found a single shrub of this in fruit near the timber-line, at the time of my second visit.

*Goodyera repens*, R. Br., var. *ophioides*, Fernald. In moss, under some bushes near the summit. I have also collected it on Mt. Abraham and Mt. Blue (Avon), and it grows at much lower elevation in Chesterville (*Miss L. O. Eaton*). It is to be expected in cold mossy woods throughout the county.

*Smilacina trifolia*, Desf. A few depauperate fruiting specimens of this grew in wet gravel far above timber-line, nearly up to 4000 feet. In the southern towns of the county it is frequent in bogs and swampy woods.

*Juncus trifidus* L., is very abundant, and grows also on Bald Mountain and Mt. Bigelow.

*Luzula spadicea*, DC., var. *melanocarpa*, Meyer, is fairly common in the upper fault ravines.

*Carex rigida*, Gooden., var. *Bigelovii*, Tuckerm., is abundant on the wind-swept portions of the saddle. It also grows at the highest point of Bald Mountain.

*Carex brunnescens*, Poir., is occasional in moist soil between the bare ledges. It also occurs on Mt. Abraham.

*Carex Magellanica*, Lam. Moist gravel, one station. I have also found it in Strong and Chesterville.

*Calamagrostis Langsdorfii*, Trin., is abundant just above timberline. It also grows on Mt. Bigelow.

*Aspidium spinulosum*, Swartz, var. *dilatatum*, Hook. Common in rich mountain woods throughout the county. There seems to be a rather definite line about 1200 feet, above which it is found.

*Lycopodium annotinum*, L., var. *pungens*, Spring, is very common, and seems to shade into the type. It also occurs on the other mountains of the county.

CHELMSFORD, MASSACHUSETTS.

## FOLIAR OUTGROWTHS FROM THE SURFACE OF THE LEAF OF ARISTOLOCHIA SIPHO.

R. G. LEAVITT.

Miss Katharine P. Loring has sent to the Gray Herbarium from Pride's Crossing, Massachusetts, a leaf of *Aristolochia Sipho* upon the under surface of which curious lamellar expansions have been

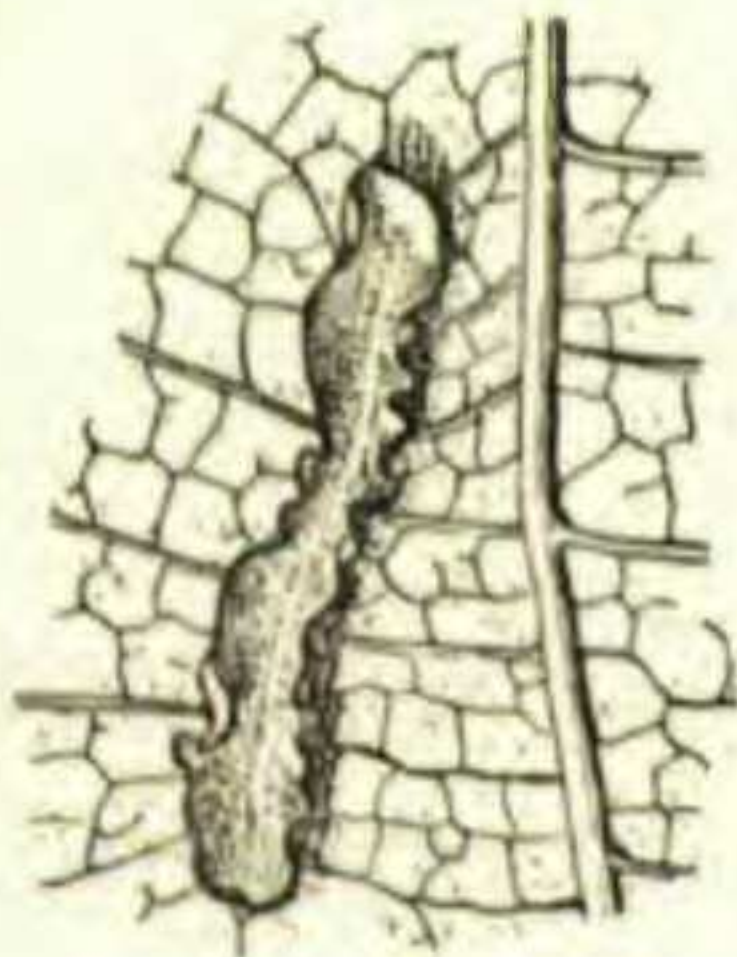


Fig. 1

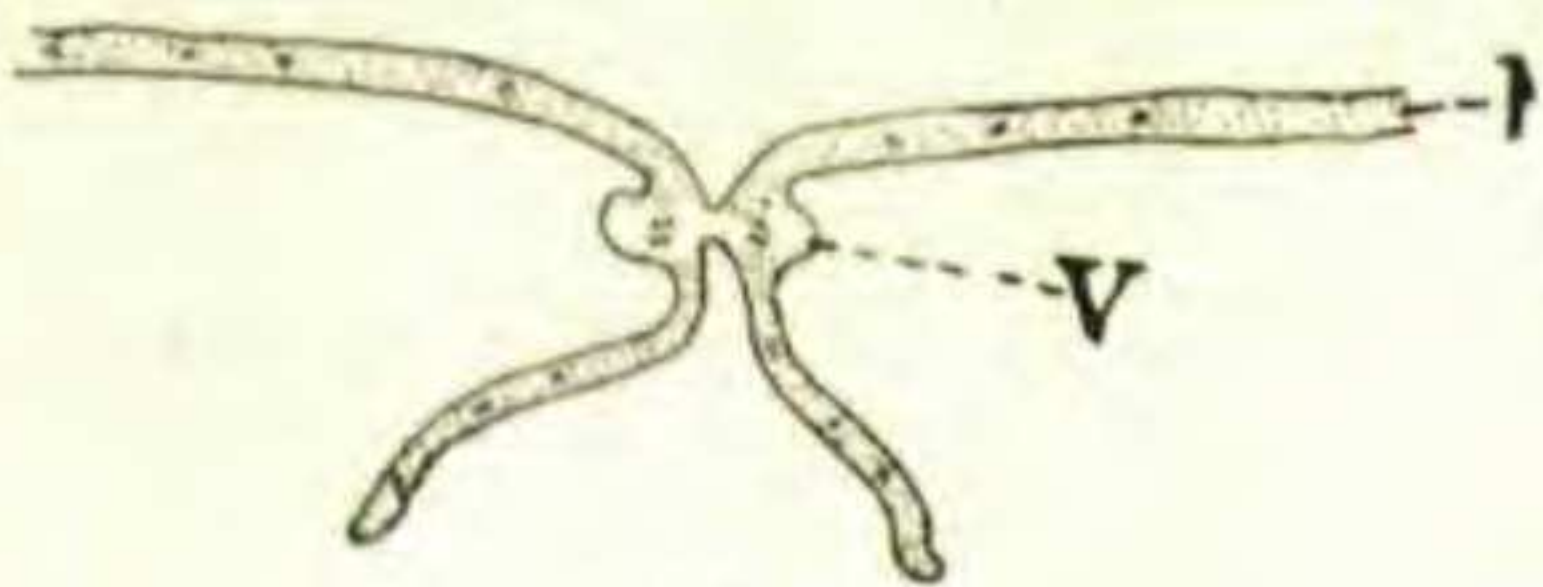


Fig. 2

formed. (Fig. 1). These unusual structures are stated by Miss Loring to have originated in the healing of wounds. She says: "I have watched it [the leaf] all summer. In the spring, when it was still folded, a fly netting dropped on it on the window sill, crushing it and splitting the leaf in several places. I thought it would wither; instead it mended itself as you see."

The places where the young blade was split are entirely closed up. The green tissue is broken, its place being taken by collenchymatous elements.

Around the margin of the break, in each case, a vein has been organized (v, Fig. 2), from which, on the under surface of the leaf, the outgrowths in question arise. There are fifteen of these structures on the half leaf sent to me for examination. They vary